

Name: _____

Remediation – Point Slope Formula – Given Two Points

After you have watched the video from the wiki, you should try the following problems and then use the key to check your work. You should use your calculator to check your answer before you use the answer key so that you practice trouble shooting your own work.

Directions: Please determine the slope-intercept equation of the line that intersects the given points.

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$y - y_1 = m(x - x_1)$$

1. (2, 7) & (1, 4)

$$m = \frac{4-7}{1-2} = \frac{-3}{-1} = 3$$

$$y - 7 = 3(x - 2)$$

$$y - 7 = 3x - 6$$

$$y = 3x + 1$$

2. (3, 4) & (12, 1)

$$m = \frac{1-4}{12-3} = \frac{-3}{9} = -\frac{1}{3}$$

$$y - 4 = -\frac{1}{3}(x - 3)$$

$$y - 4 = -\frac{1}{3}x + 1$$

$$y = -\frac{1}{3}x + 5$$

3. (9, 4) & (-4, 1)

$$m = \frac{1-4}{-4-9} = \frac{-3}{-13} = \frac{3}{13}$$

$$y - 4 = \frac{3}{13}(x - 9)$$

$$y - 4 = \frac{3}{13}x - \frac{27}{13}$$

$$y = \frac{3}{13}x + \frac{25}{13}$$

4. (4, -4) & (-4, 0)

$$m = \frac{0-(-4)}{-4-4} = \frac{4}{-8} = -\frac{1}{2}$$

$$y - (-4) = -\frac{1}{2}(x - 4)$$

$$y + 4 = -\frac{1}{2}x + 2$$

$$y = -\frac{1}{2}x - 2$$

5. (1, -2) & (7, -2)

$$m = \frac{-2-(-2)}{7-1} = \frac{0}{6} = 0$$

$$y - (-2) = 0(x - 1)$$

$$y + 2 = 0(x - 1)$$

$$y + 2 = 0$$

$$y = -2$$

6. (3, -3) & (-4, 4)

$$m = \frac{4-(-3)}{-4-3} = \frac{7}{-7} = -1$$

$$y - (-3) = -1(x - 3)$$

$$y + 3 = -x + 3$$

$$y = -x$$